3-month summary

- Double the usual chance of a hot summer
- Increased likelihood of heatwaves and heat-related impacts
- A near average or cool summer remains possible
- Chances of a wet or dry summer are similar to normal
- Nevertheless, an increased chance of localised impacts from thundery downpours

3-month likelihood of impact

Temperature

Precipitation

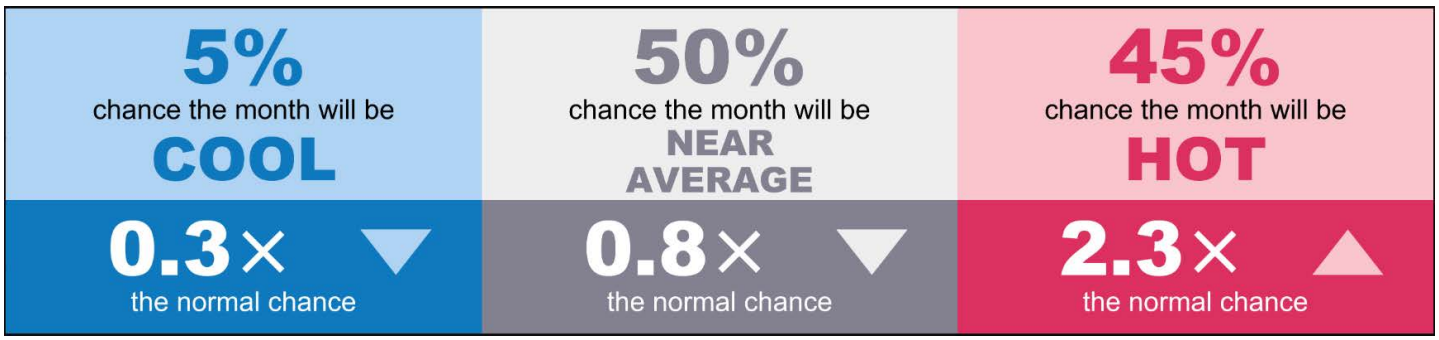
Wind speed

1-month summary

- Increased chances of June being considerably warmer than average
- Still a good chance of more usual temperatures, however
- Chances of a wet or dry June are similar to normal
- Nevertheless, an increased chance of localised impacts from thundery downpours

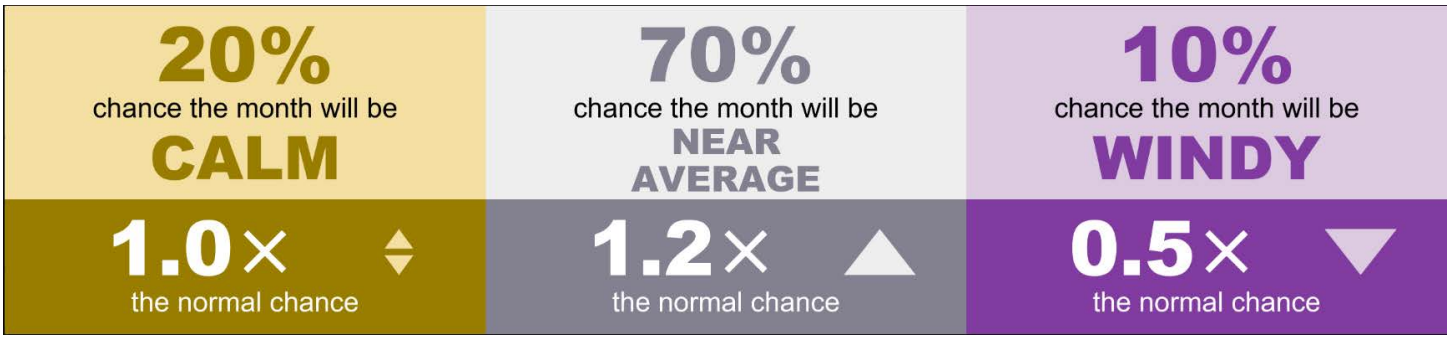
1-month likelihood of impact

Temperature



Precipitation

Wind speed



Understanding the Outlook

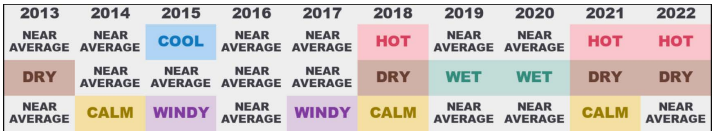
The Outlook uses 3 categories for possible UK temperature, precipitation and wind speed in the next 1 and 3 months:

COOL, NEAR AVERAGE and HOT for temperature
WET, NEAR AVERAGE and DRY for precipitation
CALM, NEAR AVERAGE and WINDY for wind speed

These are linked to observed UK conditions in past years. The NEAR AVERAGE category represents typical conditions for the period and has a normal likelihood of 60%. The higher and lower categories represent more unusual conditions that are more likely to produce impacts. Each has a normal likelihood of 20%.

The Outlook shows how the chances of occurrence of the categories differ from normal, based on knowledge of expected global meteorological patterns. It does not identify which category will actually occur.

Same 3-month period over the last 10 years


2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
NEAR AVERAGE NEAR AVERAGE COOL NEAR AVERAGE NEAR AVERAGE HOT NEAR AVERAGE NEAR AVERAGE HOT HOT
DRY NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE DRY WET WET DRY DRY
NEAR AVERAGE CALM WINDY NEAR AVERAGE WINDY CALM NEAR AVERAGE NEAR AVERAGE CALM NEAR AVERAGE

Same 1-month period over the last 10 years

2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
NEAR AVERAGE HOT NEAR AVERAGE NEAR AVERAGE HOT HOT NEAR AVERAGE NEAR AVERAGE HOT NEAR AVERAGE
NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE WET DRY WET NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE
NEAR AVERAGE CALM NEAR AVERAGE CALM WINDY NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE

Outlook in context

Drivers of UK weather for June to August

The impacts of global weather patterns on the UK is small through this period. However, there are a few which are relevant to the current Outlook:

• The warming of the UK climate, consistent with wider global warming trends
• Continued warming in the tropical Pacific, which are approaching El Niño thresholds - while fundamentally important globally, the impacts of El Niño on UK summer conditions are modest.

Long-range weather predictions

The Met Office and other prediction centres around the world routinely produce long-range predictions of conditions in the months ahead. Agreement between these systems for the Outlook is good, with signals for high pressure to the north of the UK, and low pressure to the south, being the preferred outcome.

Impact

Consistent with our warming climate, there is an increase in the likelihood of hotter than normal conditions. Whilst this doesn't necessarily mean heatwaves will occur, it does increase the likelihood of these compared to normal. Given the more likely pressure pattern, there is an increased chance of drier-than-normal conditions in the north and wetter-than-normal in the south, averaging out for the UK as a whole. Given the greater likelihood of weather coming from the continent, there is an increased chance of thunderstorms, with these possible across the whole country, but perhaps more prevalent for southern areas.

Outlook compared to normal likelihood

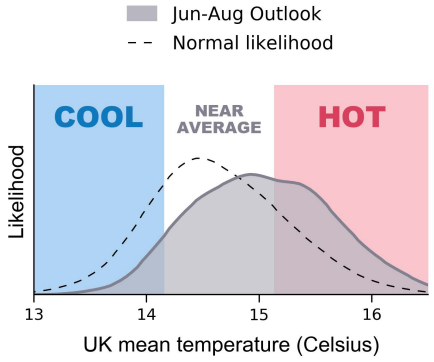
The curves below show the likelihood of the 1- and 3-month average temperature, precipitation and wind speed taking specific values. In each case:

- The dashed curve shows the normal likelihood based on how often each value has been recorded in past years
- The solid curve shows the current likelihood based on the Outlook for this year

The differences in these curves show how the probabilities for the coming periods differ compared to past years. Where the solid curve (corresponding to this year's Outlook) lies above the dashed curve (normal likelihood), the temperature, precipitation or wind speed at that point has a greater-than-normal likelihood of occurring. Likewise, wherever it is below the dashed curve, the likelihood of those values is less than normal.

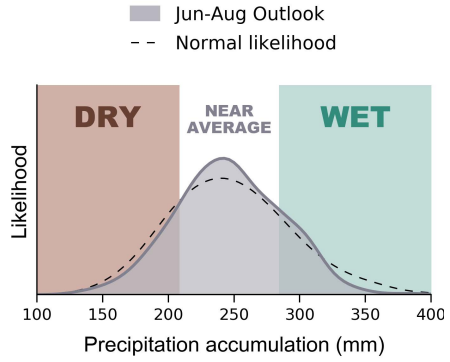
A shift of the solid curve to the left of the dashed curve indicates an increase in the chances of below-average temperature, rainfall or winds. A shift to the right, meanwhile, indicates increased chances of above-average values.

3-month temperature Outlook compared to normal



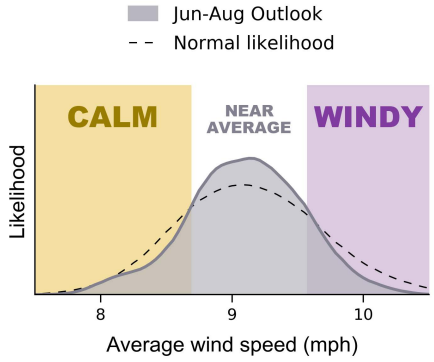
An increase in chances of hot weather

3-month precipitation Outlook compared to normal



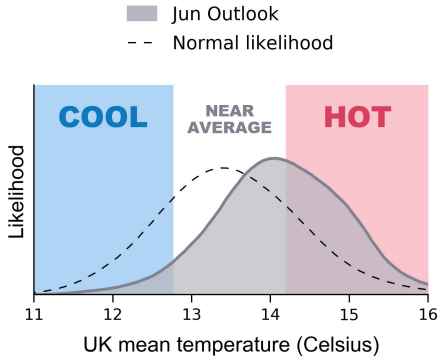
Rainfall generally near average

3-month wind speed Outlook compared to normal



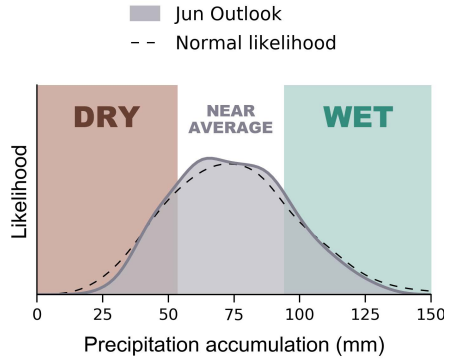
Wind speeds generally near average

1-month temperature Outlook compared to normal



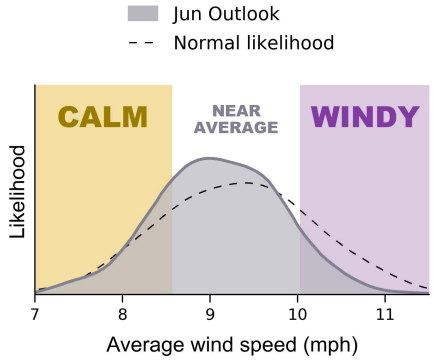
Increased chances of June being considerably warmer than average

1-month precipitation Outlook compared to normal



Rainfall generally near average

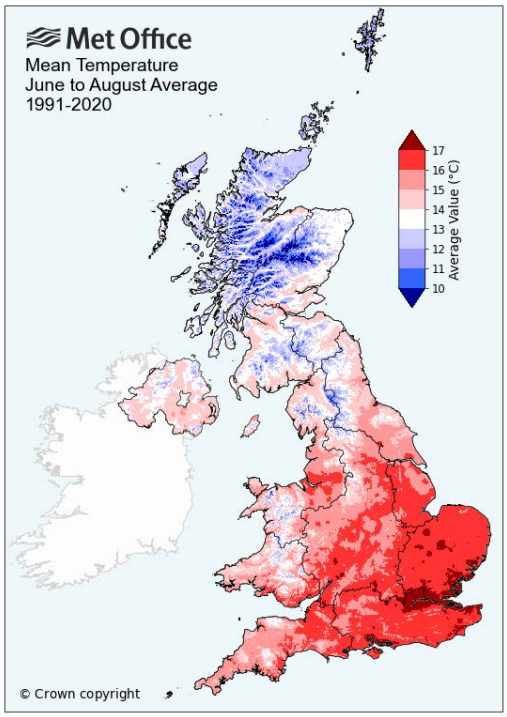
1-month wind speed Outlook compared to normal



Wind speeds generally near average

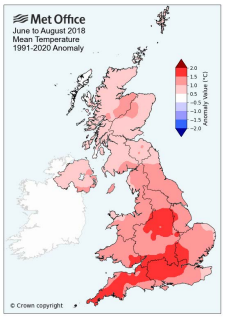
Long-term average temperatures (3-month)

This page shows the long-term average temperatures across the UK applicable to the 3-month Outlook period.

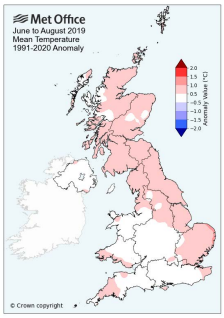


Average temperatures for June - August based on observations of past years.

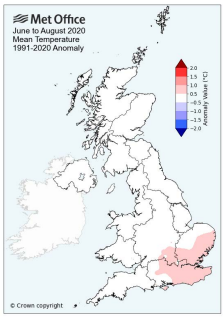
Last 5 years temperatures, difference from average (3-month)



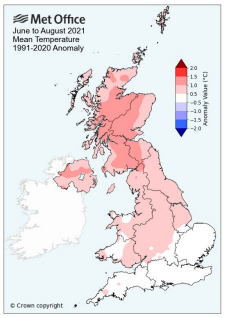
Jun - Aug 2018



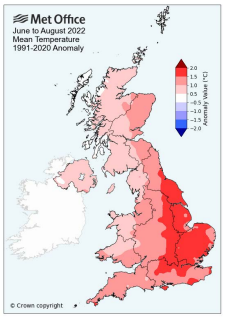
Jun - Aug 2019



Jun - Aug 2020



Jun - Aug 2021



Jun - Aug 2022

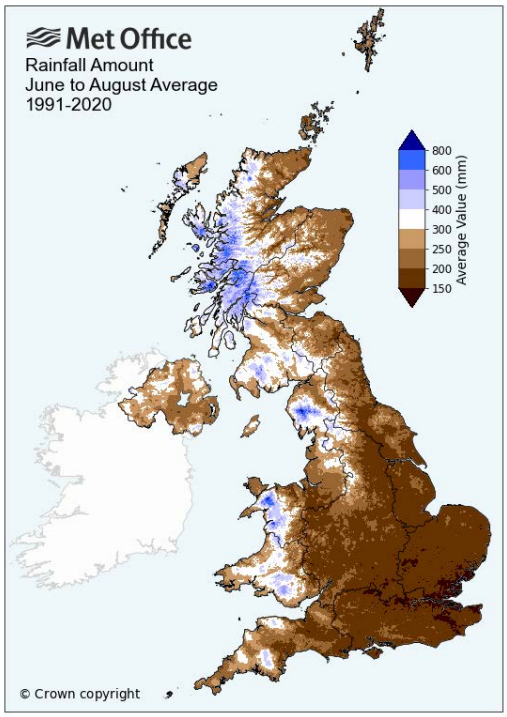
Anomaly (°C)

< -2.0	-2.0 to -1.5	-1.5 to -1.0	-1.0 to-0.5	-0.5 to 0.5	0.5 to 1.0	1.0 to 1.5	1.5 to 2.0	> 2.0

These maps show how June - August temperatures in the last five years differed from the long-term average temperatures shown above in the upper panel. Pink and red colours indicate hotter-than-average conditions while blue shades indicate cooler-than-average conditions. Detailed information on the climate of the UK is available at www.metoffice.gov.uk/climate.

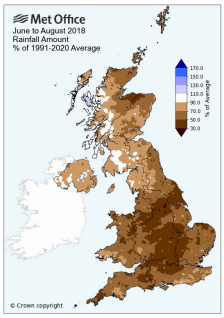
Long-term average precipitation (3-month)

This page shows the long-term average precipitation across the UK applicable to the 3-month Outlook period.

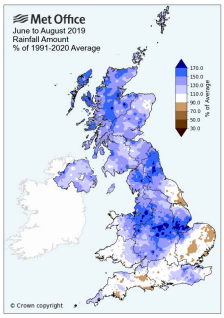


Average precipitation for June - August based on observations of past years.

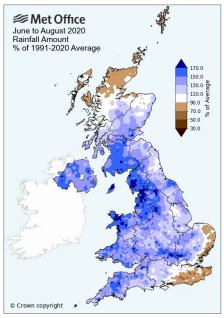
Last 5 years precipitation, difference from average (3-month)



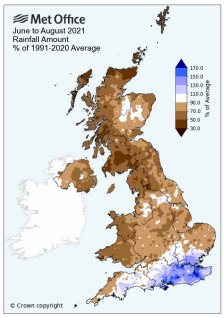
Jun - Aug 2018



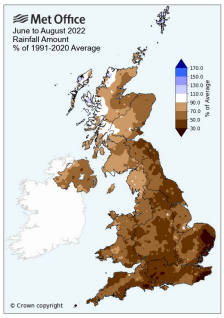
Jun - Aug 2019



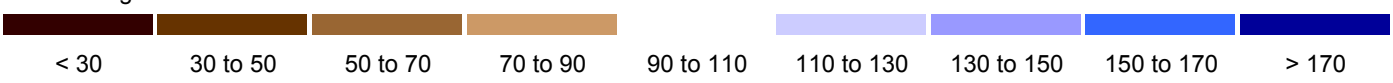
Jun - Aug 2020



Jun - Aug 2021



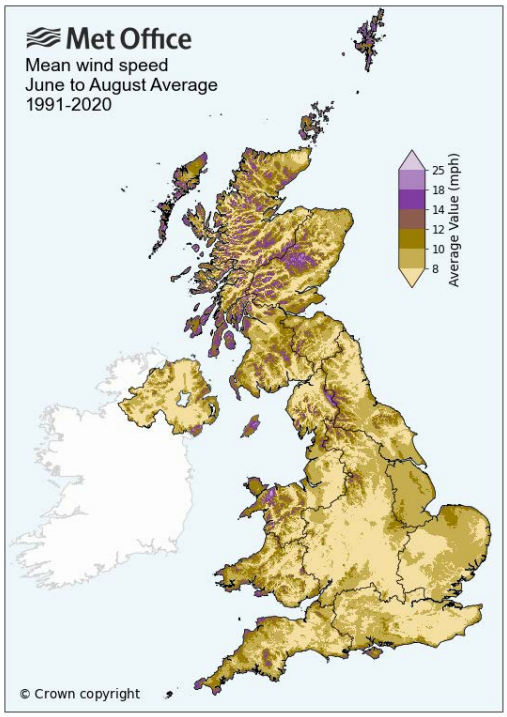
Jun - Aug 2022



These maps show how June - August precipitation in the last five years differed from the long-term average precipitation shown above in the upper panel. Brown colours indicate drier-than-average conditions while blue shades indicate wetter-than-average conditions. Detailed information on the climate of the UK is available at www.metoffice.gov.uk/climate.

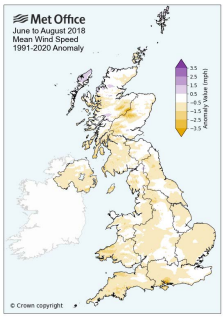
Long-term average wind speed (3-month)

This page shows the long-term average wind speed across the UK applicable to the 3-month Outlook period.

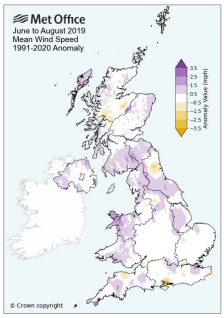


Average wind speed for June - August based on observations of past years.

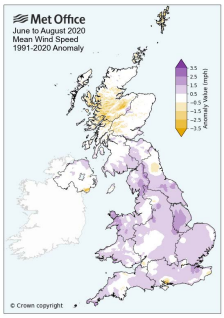
Last 5 years wind speed, difference from average (3-month)



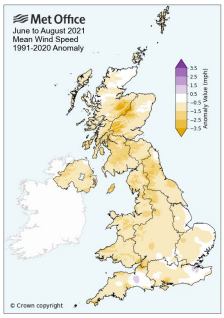
Jun - Aug 2018



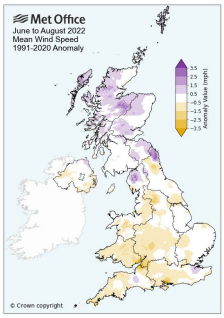
Jun - Aug 2019



Jun - Aug 2020



Jun - Aug 2021



Jun - Aug 2022

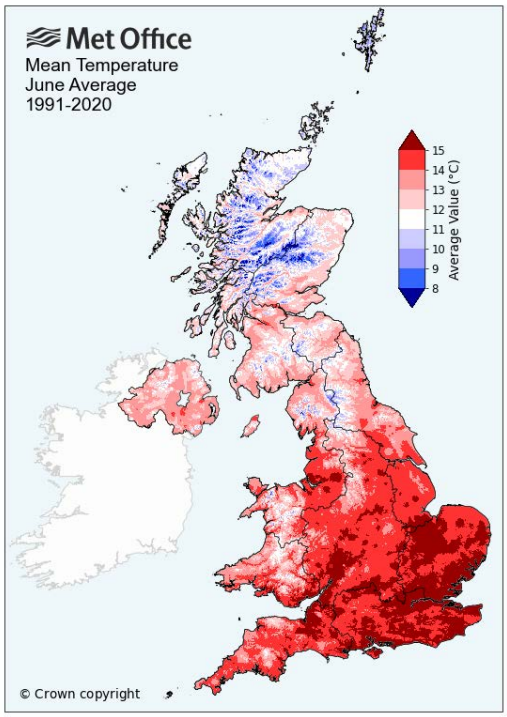
Anomaly (mph)

< -3.5	-3.5 to -2.5	-2.5 to -1.5	-1.5 to -0.5	-0.5 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	> 3.5

These maps show how June - August wind speed in the last five years differed from the long-term average wind speeds shown above in the upper panel. Yellow colours indicate calmer-than-average conditions while purple shades indicate windier-than-average conditions. Detailed information on the climate of the UK is available at www.metoffice.gov.uk/climate.

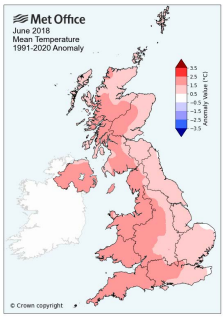
Long-term average temperatures (1-month)

This page shows the long-term average temperatures across the UK applicable to the 1-month Outlook period.

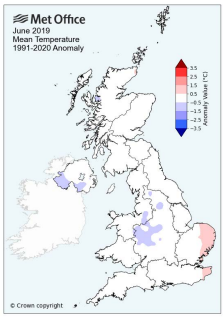


Average temperatures for June based on observations of past years.

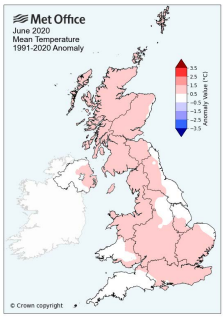
Last 5 years temperatures, difference from average (1-month)



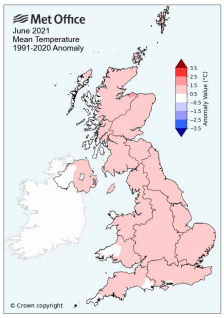
Jun 2018



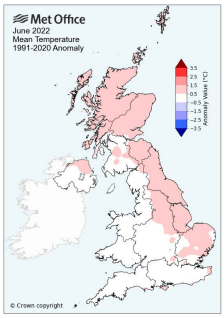
Jun 2019



Jun 2020



Jun 2021



Jun 2022

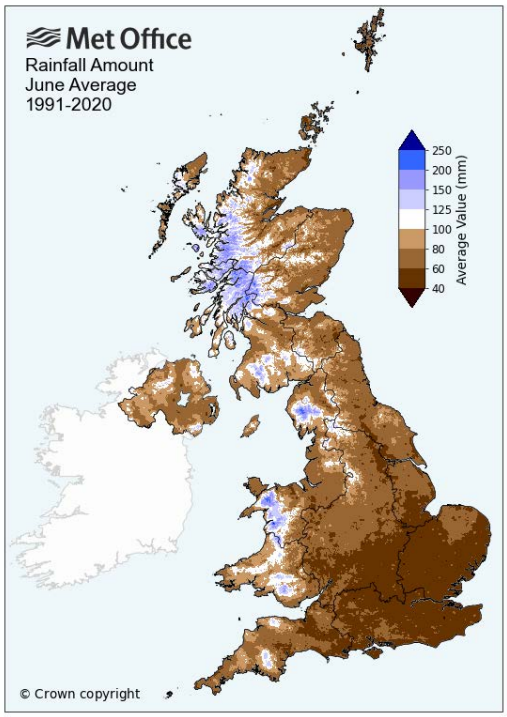
Anomaly (°C)

< -3.5	-3.5 to -2.5	-2.5 to -1.5	-1.5 to -0.5	-0.5 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	> 3.5

These maps show how June temperatures in the last five years differed from the long-term average temperatures shown above in the upper panel. Pink and red colours indicate hotter-than-average conditions while blue shades indicate cooler-than-average conditions. Detailed information on the climate of the UK is available at www.metoffice.gov.uk/climate.

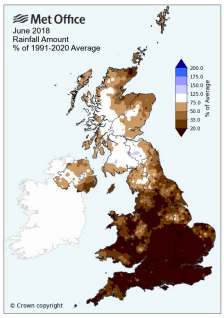
Long-term average precipitation (1-month)

This page shows the long-term average precipitation across the UK applicable to the 1-month Outlook period.

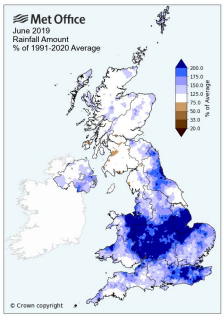


Average precipitation for June based on observations of past years.

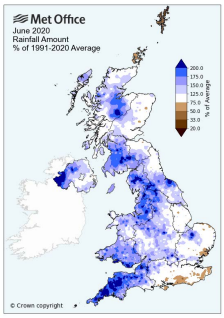
Last 5 years precipitation, difference from average (1-month)



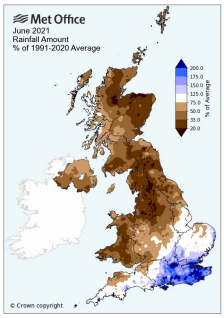
Jun 2018



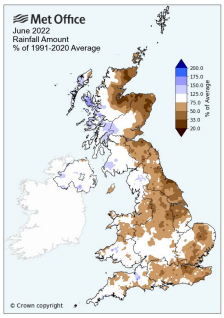
Jun 2019



Jun 2020



Jun 2021



Jun 2022

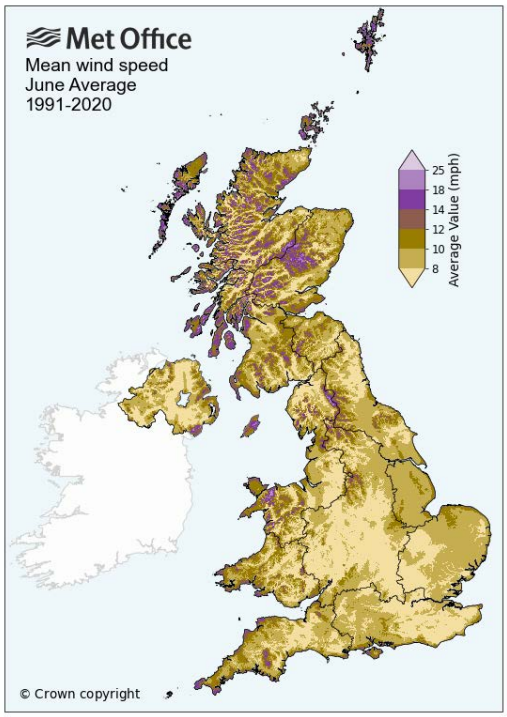
% of average

< 20	20 to 33	33 to 50	50 to 75	75 to 125	125 to 150	150 to 175	175 to 200	> 200

These maps show how June precipitation in the last five years differed from the long-term average precipitation shown above in the upper panel. Brown colours indicate drier-than-average conditions while blue shades indicate wetter-than-average conditions. Detailed information on the climate of the UK is available at www.metoffice.gov.uk/climate.

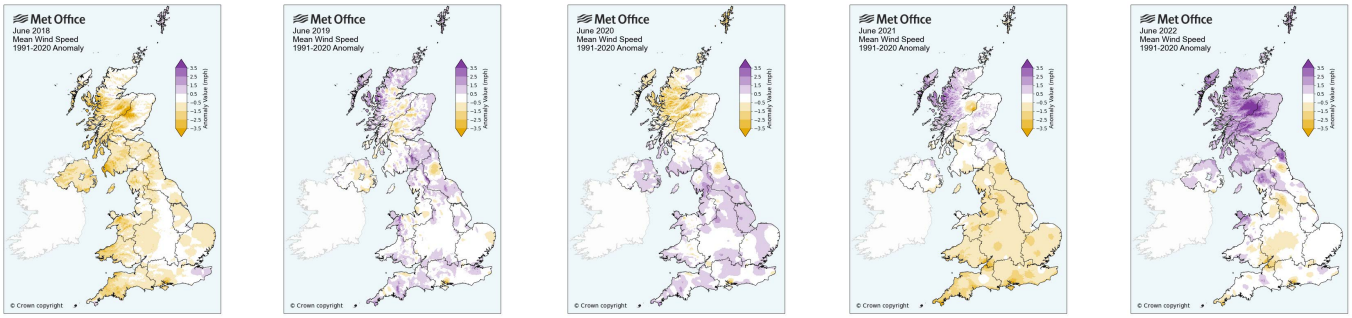
Long-term average wind speed (1-month)

This page shows the long-term average wind speed across the UK applicable to the 11month Outlook period.



Average wind speed for June based on observations of past years.

Last 5 years wind speed, difference from average (1-month)



Jun 2018 | Jun 2019 | Jun 2020 | Jun 2021 | Jun 2022

Anomaly (mph)

< -3.5 | -3.5 to -2.5 | -2.5 to -1.5 | -1.5 to -0.5 | -0.5 to 0.5 | 0.5 to 1.5 | 1.5 to 2.5 | 2.5 to 3.5 | > 3.5

These maps show how June wind speed in the last five years differed from the long-term average wind speeds shown above in the upper panel. Yellow colours indicate calmer-than-average conditions while purple shades indicate windier-than-average conditions. Detailed information on the climate of the UK is available at www.metoffice.gov.uk/climate.

Q&As

Q. What is the point of the Outlook, who is it meant for?
A. This Outlook is produced for planners in government and business who make risk-based decisions. These users are aware of the complexities of this type of outlook and will include those factors in their decision-making process.

Q. How did you decide on the Outlook? What are the main factors affecting it?
A. It is based on information from observations, several numerical prediction systems and expert judgement. See the 'Outlook in Context' section of the Outlook for more details.

Q. Is the Outlook for the whole country?
A. The Outlook is for the average of conditions over the UK as a whole. Regional deviations from the UK-average can occur. For example, average UK precipitation can result from below-average rainfall for the northwest and above-average for the southeast.

Q. How confident are you in this Outlook?
A. The percentages in the 'Likelihood of Impact' sections of the Outlook give the level of confidence.

Q. Does this mean we are going to see more dry conditions and what are the associated impacts?
A. The Outlook shows the chances of a dry summer for the UK are close to average. However, there is an increased likelihood of summer thunderstorms, particularly in southern England, and therefore an increased chance of localised impacts, such as flash flooding. Rainfall totals are likely to vary considerably in these situations.
Indications are that drier conditions are more likely for northern parts of the UK where there has been a drier than average Spring. Any detailed questions about long-term hydrological prospects and impacts should be referred to UKCEH (http://www.hydoutuk.net/) or EA, SEPA, Natural Resources Wales or NI Direct.

Q. Does the increased chance of hot weather this summer mean we could see temperatures in excess of 40C again?
A. The likelihood of temperatures reaching 40C in the UK is still quite low and therefore unlikely to be reached this year. However, with an increased chance of above average temperatures we are likely to see some very hot days this summer with heatwaves and hot weather impacts possible.
The Outlook is not a guarantee of prolonged hot weather, and an increased chance of hot conditions could just as easily reflect fairly typical summer conditions with a mix of hot and cool days, warm nights, or less extreme levels of warmth rather than continual heatwave conditions specifically. The Outlook does not pin down when they might occur.

About the Outlook

The Outlook presented here is for United Kingdom as a whole and is based on information from observations, several numerical prediction systems and expert judgement. It is updated monthly to reflect the latest information on global weather patterns and their effect on the UK. The Outlook is designed to be used in conjunction with shorter-range forecasts – detailed weather forecast information is available on the Met Office website.

In this product, temperature refers to the average of daytime maxima and night-time minima. Wind speed refers to the average wind speed at a height of 10 metres. All numerical values relate to averages (temperature, wind speed) or totals (precipitation – rain, sleet, snow and hail) over 1 or 3 months, which are further averaged over the UK land area as a whole. Normal likelihood and long-term averages are established using the period 1991-2020.

Find out more

- UK 3-month Outlook user guidance page:
  https://www.metoffice.gov.uk/services/government/contingency-planners/user-guidance/user-guidance
- Explainers on climate drivers (such as the El Niño Southern Oscillation and North Atlantic Oscillation) that influence seasonal forecasts and the impacts they can have on UK weather:
  https://www.metoffice.gov.uk/services/government/contingency-planners/seasonal-forecasts-and-climate-drivers-resources
- Contingency planners page:
  https://www.metoffice.gov.uk/services/government/contingency-planners/index

Contact us

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Provide your feedback

We would like to hear your feedback on the UK 3-month Outlook to understand how it is being used. Please fill in the short form using this link or QR code to share your thoughts.